

REMARKS

At the time the current Official Action was mailed, the Examiner rejected claims 1-17. Reconsideration of the application in view of the remarks set forth below is respectfully requested.

Claims 1-17 have been cancelled. Claims 18-43 have been added. No new matter has been presented.

Support for claims 18-26 may be found in Figs. 2 and 3, which illustrate a pulse oximetry sensor in which the cable extends from the substrate at an angle that is not in the line of the axis through the emitter and the detector.

Support for claims 27-36 may be found in Fig. 1 and in paragraphs [0020] and [0021]. Applicants refer the Examiner to Fig. 1, which depicts a pulse oximetry sensor that generally has the structure of a planar curve when flattened. By way of clarification, Applicants note that the human head may be considered to be roughly spherical in shape. A surface section taken from the equator region of the sphere would have a substantially rectangular shape when flattened against a planar surface. In contrast, a surface section taken from an area of the sphere correlating with the forehead region of the human head will have a more arcuate shape when flattened against a planar surface.

Support for claims 37-43 may be found in Fig. 2, which illustrates a pulse oximetry sensor and a headcovering. The cable of the sensor extends outward from the substrate such that the cable passes through the upper portion of the headcovering.

Rejection under 35 U.S.C. § 101

Claim 5 was rejected under 35 U.S.C. § 101 as containing non-statutory subject matter. Claim 5 has been cancelled, and thus the issue is moot.

Rejections under 35. U.S.C. § 102

Claims 1-7, 9-11, and 13-16 were rejected under 35 U.S.C. § 102 as being anticipated by Toomin *et al.* (U.S. Patent No. 5,995,857). Claims 1-5, 9, 11, 12 and 15 were rejected under 35 U.S.C. § 102 as being anticipated by Cui *et al.* (U.S. Patent No. 5,584,296). Claims 1, 2, 11, 12 and 15 were rejected under 35 U.S.C. § 102 as being anticipated by Mathews (U.S. Patent No. 5,431,170).

Anticipation under Section 102 can be found only if a single reference shows exactly what is claimed. *Titanium Metals Corp. v. Banner*, 778 F.2d 775, 227 U.S.P.Q. 773 (Fed. Cir. 1985). For a prior art reference to anticipate under Section 102, every element of the claimed invention must be identically shown in a single reference. *In re Bond*, 910 F.2d 831, 15 U.S.P.Q.2d 1566 (Fed. Cir. 1990). To maintain a proper rejection under Section 102, a single reference must teach each and every element or step of the rejected claim. *Atlas Powder v. E.I. du Pont*, 750 F.2d 1569 (Fed. Cir. 1984). Thus, if the claims recite even one element not found in the cited reference, the reference does not anticipate the claimed invention.

As claims 1-17 have been cancelled, the rejections under 35 U.S.C. § 102 are moot. However, to the extent that cited references may be applied to claims 18-43, Applicants submit the following comments for the Examiner's consideration. Claims 18-26 generally relate to pulse oximetry sensors in which the cable extends from the substrate at an angle that is not in the line of the axis through the emitter and the detector. Claims 27-36 generally relate to pulse oximetry sensors in which the substrate has the structure of a planar curve when flattened against a planar surface. Claims 37-43 generally relate to a headcovering with a pulse oximetry sensor in which the sensor cable extends through the top of the headcovering. Applicants note that Toomin *et al.*, Cui *et al.*, and Mathews do not describe a pulse oximetry sensor or a headcovering as set forth in new claims 18-43. Accordingly, Applicants respectfully request withdrawal of the rejections under 35 U.S.C. § 102.

Rejection under 35 U.S.C. § 103

Claims 6-8, 10, 13, 14, 16, and 17 were rejected under 35 U.S.C. § 103(a) as being obvious over Mathews (U.S. Patent No. 5,431,170) in view of Sarussi *et al.* (U.S. Patent Publication No. 2003/0229276).

The burden of establishing a *prima facie* case of obviousness falls on the Examiner. *Ex parte Wolters and Kuypers*, 214 U.S.P.Q. 735 (PTO Bd. App. 1979). Obviousness cannot be established by combining the teachings of the prior art to produce the claimed invention absent some teaching or suggestion supporting the combination. *ACS Hospital Systems, Inc. v. Montefiore Hospital*, 732 F.2d 1572, 1577, 221 U.S.P.Q. 929, 933 (Fed. Cir.

1984). Accordingly, to establish a *prima facie* case, the Examiner must not only show that the combination includes *all* of the claimed elements, but also a convincing line of reason as to why one of ordinary skill in the art would have found the claimed invention to have been obvious in light of the teachings of the references. *Ex parte Clapp*, 227 U.S.P.Q. 972 (B.P.A.I. 1985). When prior art references require a selected combination to render obvious a subsequent invention, there must be some reason for the combination other than the hindsight gained from the invention itself, i.e., something in the prior art as a whole must suggest the desirability, and thus the obviousness, of making the combination. *Uniroyal Inc. v. Rudkin-Wiley Corp.*, 837 F.2d 1044, 5 U.S.P.Q.2d 1434 (Fed. Cir. 1988).

As claims 6-8, 10, 13, 14, 16, and 17 have been cancelled, the rejection under 35 U.S.C. § 103(a) is moot. However, to the extent that Mathews and Sarussi *et al.* may be applied to claims 18-43, Applicants submit the following comments for the Examiner's consideration. Claims 18-26 generally relate to pulse oximetry sensors in which the cable extends from the substrate at an angle that is not in the line of the axis through the emitter and the detector. Claims 27-36 generally relate to pulse oximetry sensors in which the substrate has the structure of a planar curve when flattened against a planar surface. Claims 37-43 generally relate to a headcovering with a pulse oximetry sensor in which the sensor cable extends through the top of the headcovering. As discussed above, Mathews does not recite the elements of claims 18-43. Further, Sarussi *et al.* do not overcome the deficiencies of Mathews. Thus, the combination of Mathews and Sarussi does not teach the claimed invention and, therefore, cannot support an obviousness rejection of claims 18-43.

Conclusion


In view of the remarks set forth above, Applicants respectfully request reconsideration of the Examiner's rejections and allowance of all pending claims. If the Examiner believes that a telephonic interview will help speed this application toward issuance, the Examiner is invited to contact the undersigned at the telephone number listed below.

General Authorization for Extensions of Time

In accordance with 37 C.F.R. § 1.136, Applicants hereby provide a general authorization to treat this and any future reply requiring an extension of time as incorporating a request therefor. Furthermore, Applicants authorize the Commissioner to charge the appropriate fee for any extension of time to Deposit Account No. 06-1315; Order No. TYHC:0046/FLE.

Respectfully submitted,

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